



Side by Side Bar Graph for Favourite Sport vs. Sex

How to Get a Random Sample from CensusAtSchool

Go to the CensusAtSchool [Random Sampler](#) to download a sample.X

Reference year: *(select year)* **Sample size:** *At least 50 students*

Select questions: *Favourite sport*

Location: *Select location*

Year level: *(select a range of year levels)*

To protect privacy there is a rule built into the sampler that the requested sample size cannot exceed 10% entered.

Task:

Side by side bar graphs are used when we want to easily compare data from two or more different groups. In this activity you are going to compare the time spent on the types of activity according to the sex of the students. You might wish to compare using a different characteristic that you negotiate with your teacher.

In the CensusAtSchool random sample find data for sex and favourite sport.

- 1.** Think of a question you are interested in and give your investigation a name.
- 2.** Tally the favourite sports for males and also for females. Enter your results into a frequency table like the one on the back of the worksheet. If you use Excel you can work with a sample of one hundred students. If completing by hand a sample of fifty will be appropriate.
- 3.** Select the five highest scoring sports for females and again for males. Set up a pair of axes using a scale on the vertical axis that will allow your largest number to be shown. The horizontal axis will need to show ten evenly sized, labelled intervals that can be split in half for male and female data. You will need fewer than 10 if males and females have the same favourite sports.
- 4.** Construct a bar graph for each of the sports shown in your table. Use the % frequency for males and females and show these columns side by side for easy comparison. data should be side by side. Choose a colour for each and show this in a key. Remember in a bar graph, the bars for each category are separated by a space.



- 5.** Based on your side by side bar graph, describe any relationship you find between a person's sex and their favourite sport.

MALES**FEMALES**

Favourite sport	Tally	f	%f	Tally	f	%f
Athletics						
Australian Rules						
Badminton						
Baseball/T-Ball						
Basketball						
Cricket						
Cycling						
Dancing						
Going to the gym						
Golf						
Gymnastics						
Hockey						
La Crosse						
Martial Arts						
Netball						
Rollerblading						
Rugby League						
Rugby Union						
Sailing						
Skateboarding						
Soccer						
Softball						
Surf Life Saving						
Swimming						
Table Tennis						
Tennis						
Volleyball						
Other						

Extension:



6. Collect data for your own class and compare it to the CensusAtSchool results.

7. Imagine your school won \$100,000 on Wizz Kids Who Wants to be a Millionaire. You want to write a letter to your school council requesting that some of this money is spent on sporting facilities. What other data would you need to collect in order to back up your request?